

hp StorageWorks

IP Storage Router 2122-2 Product Support Tables for the *SAN Design Reference Guide*

This document contains the latest support information for the hp StorageWorks SR2122-2 IP Storage Router using version 3.4.5b FW.

Table 1 lists the supported B-Series Fibre Channel switch models and firmware.

Table 2 lists the supported C-Series Fibre Channel switch models and firmware.

Table 3 lists the supported M-Series Fibre Channel switch models and firmware.

Table 4 lists the supported storage models and firmware for iSCSI.

Table 5 lists the supported storage models and firmware for FCIP.

Table 6 lists iSCSI-supported operating systems, network interface controllers and iSCSI drivers.

Switch Support for the SR2122-2

The following tables list the Fibre Channel switches that are supported for use with the SR2122-2 IP Storage Router.

NOTE: Not all switch product lines are supported on all operating systems or for both iSCSI and FCIP. Refer to the notes following each table for specific support information.

B-series

Table 1: HP StorageWorks B-Series Product Line Switches

| HP StorageWorks Switch Name | | Firmware Version | Number of Ports |
|--|---|------------------|--|
| HP StorageWorks MSA SAN switch 2/8 | | 3.1.3a, 3.2.0 | 8 |
| HP StorageWorks SAN Switch 2/8 EL, 2/8 Power Pak | | | 8 |
| HP StorageWorks SAN Switch 2/16, 2/16 EL, 2/16 Power Pak | | | 16 |
| HP StorageWorks SAN Switch 2/32, 2/32 Power Pak | | 4.2.0c, 4.2.2a | 32 |
| HP StorageWorks Core Switch 2/64, 2/64 Power Pak | | | 64 (2 switches per chassis, for a total of 128 ports per chassis) |
| HP StorageWorks SAN switch 2/8V, 2/8V power pack, 2/8V TAA, 2/8V TAA power pack | | | 8 |
| HP StorageWorks SAN switch 2/16V, 2/16V TAA | | | 16 |
| HP StorageWorks SAN Switch 2/16N FF, 2/16N power pack, 2/16N FF TAA, 2/16N TAA power pack 4.2.0c | | | 16 |
| HP StorageWorks SAN Director 2/128, 2/128 power pack | | | 128 |
| HP Switch Name | Compaq StorageWorks Switch Name | | Number of Ports |
| HP Brocade 2400 (HP reseller) | Compaq StorageWorks SAN Switch 8 | 2.6.2a, 2.6.2b | 8 |
| N/A | Compaq StorageWorks SAN Switch 8-EL | | 8 |
| HP Brocade 2800 (HP reseller) | Compaq StorageWorks SAN Switch 16 | | 16 |
| N/A | Compaq StorageWorks SAN Switch 16-EL | | 16 |
| HP Surestore FC Switch 6164 (64 ISL Ports) | Compaq StorageWorks SAN Switch Integrated/32 (64 ISL Ports) | | 32 (counts as 6 switches and 2 hops when applying configuration rules) |
| HP Surestore FC Switch 6164 (32 ISL Ports) | Compaq StorageWorks SAN Switch Integrated/64 (32 ISL Ports) | | 64 (counts as 6 switches and 2 hops when applying configuration rules) |

Table 1: HP StorageWorks B-Series Product Line Switches (Continued)

| HP StorageWorks Switch Name | | Firmware Version | Number of Ports |
|---|--|------------------|-----------------|
| HP Surestore FC 1Gb/2Gb Entry Switch 8B | N/A | 3.1.3a, 3.2.0 | 8 |
| N/A | Compaq StorageWorks SAN Switch 2/8-EL | | 8 |
| N/A | Compaq StorageWorks SAN Switch 2/16-EL | | 16 |
| HP Surestore FC 1Gb/2Gb Switch 8B | N/A | | 8 |
| HP Surestore FC 1Gb/2Gb Switch 16B | Compaq StorageWorks SAN Switch 2/16 | | 16 |

Notes for B-Series Product Line Switches

- All switch models listed in Table 1 are supported for iSCSI on all operating systems listed in Table 6, and for FCIP on all operating systems listed in Table 5.

C-series**Table 2: HP C-Series Product Line Switches**

| Switch Name | Firmware Version | Number of Ports |
|-------------|------------------|-----------------|
| MDS 9506 | 1.2.1b, 2.0.1b | 128 |
| MDS 9509 | 1.2.1b, 2.0.1b | 224 |
| MDS 9216 | | 48 |
| MDS 9120 | 1.2.1b, 2.0.1b | 20 |
| MDS 9140 | | 40 |

Notes for C-Series Product Line Switches

- All switch models listed in Table 2 are supported for iSCSI on all operating systems listed in Table 6, and for FCIP on all operating systems listed in Table 5.

M-series

Table 3: HP StorageWorks M-Series Product Line Switches

| HP StorageWorks Switch Name | | Firmware Version | Number of Ports |
|---|--|--|-----------------|
| HP StorageWorks edge switch 2/12 | | 06.01.00-18 06.02.00-22 | 4 to 12 |
| HP StorageWorks edge switch 2/16 | | | 16 |
| HP StorageWorks edge switch 2/24 | | | 8 to 24 |
| HP StorageWorks edge switch 2/32 | | | 16 to 32 |
| HP StorageWorks director 2/64 | | | 32 to 64 |
| HP StorageWorks director 2/140 | | | 64 to 140 |
| HP StorageWorks edge switch 2/12, 2/24: second generation Note: Mixing firmware versions is only supported during upgrade. Do not enable new features until upgrade is complete. | | 06.02.00-24 (Recommended) 05.03.01-01 (Min for Edge Switch 2/24) 05.05.01-01 (min for Edge Switch 2/12) | 12 to 24 |
| HP Switch Name | Compaq Switch Name | | Number of Ports |
| N/A | McDATA ES-3016 (Compaq reseller) | 06.01.00-18 06.02.00-22 | 16 |
| N/A | McDATA ES-3032 (Compaq reseller) | | 32 |
| HP Director FC-64 | Compaq StorageWorks SAN Director 64 | | 64 |

Notes for M-Series Product Line Switches

- All switch models listed in Table 3 are supported for iSCSI on Microsoft Windows and Red Hat Linux. HP-UX is not supported for iSCSI with M-Series switch models.
- FCIP is supported with M-Series switch models listed in Table 3 for all operating systems listed in Table 5.

Table 4: Supported Storage Arrays for iSCSI

| Storage Arrays | Minimum Firmware | HP-UX iSCSI Initiators | Windows 2000, 2003 iSCSI Initiators | Red Hat Linux iSCSI Initiator |
|---|-------------------------|--|--|-------------------------------|
| MSA1000 | v4.38 | B11.11.03b B.11.11.03d (HP-UX 11i v1) B11.23.03b (HP-UX 11i v2 pre-0409) B11.23.03c B.11.11.03d (HP-UX 11i v2 0409) | HP Windows Initiator 3.1.1(W2K only), 3.1.3, 3.1.4 Microsoft Windows Initiator 1.05a, 1.06 | V3.4.1 |
| RA/MA8000, ESA/EMA12000, EMA16000 (HSG80) | ACS v8.6x, ACS v8.7x | Not Supported | | |
| Enterprise Virtual Array (EVA5000/3000) | VCS v2.006 | Not Supported | | |
| Enterprise Virtual Array (EVA5000/3000) | VCS v3.010, v3.020 | B11.11.03b B.11.11.03d (HP-UX 11i v1) B11.23.03b (HP-UX 11i v2 pre-0409) B11.23.03c B.11.11.03d (HP-UX 11i v2 0409) | | |
| VA7100 | HP 19 | | | |
| VA7400, VA7410 | A120 | | | |
| XP128 | v21-06-22-00/00 | | | |
| XP256 | v63-49-21-00/00 | | Not Supported | Not Supported |
| XP1024 | v21-06-22-00/00 | | HP Windows Initiator 3.1.1, 3.1.3, 3.1.4 Microsoft Windows Initiator 1.05a, 1.06 | V3.4.1 |
| XP48/512 | v01-19-26-00/00 | | Not Supported | Not Supported |

Table 5: Supported Storage Arrays for FCIP

| Storage Arrays | Firmware | Operating System | Multi-Path Software |
|---|------------------------------------|--|-----------------------|
| Continuous Access Enterprise Virtual Array (EVA5000, EVA3000) | VCS v3.010, v3.014, v3.020, v3.025 | HP OpenVMS V7.3.2, V7.3.1, V7.2.2 | Native |
| | | HP Tru64 Unix V5.1A, V5.1B | Native |
| | | IBM AIX V4.3.3, V5.1, V5.2 | Secure Path |
| | | Linux Red Hat AS2.1 e-27 (32-bit) | |
| | | Linux SuSE SLES7, SLES8, United Linux 1.0 | |
| | | Windows 2000 Server, Advanced Server, 2003 (32 and 64 bit), NT v4.0 SP6a | |
| | | HP-UX v11.0, 11i v1, 11i v2 | |
| | | Novell NetWare V5.1 SP6, V6 SP 3, V6.5 | |
| | | Sun Solaris V2.6, V7, V8, V9 | |
| Continuous Access XP128/1024 | v21-05-23-00/00 | HP OpenVMS V7.3.1, V7.2.2 | Native |
| | | HP Tru64 Unix V5.1A | Native |
| | | Sun Solaris 8 | Contact HP |
| | | IBM AIX V5.2 | AutoPath |
| | | Linux Red Hat AS2.1 e-27 (32-bit) | Contact HP |
| | | Linux SuSE SLES8 | Contact HP |
| | | Windows 2000, 2003 | Autopath/ Secure Path |
| | | HP-UX v11i v1 | Autopath/ Secure Path |

Table 5: Supported Storage Arrays for FCIP (Continued)

| Storage Arrays | Firmware | Operating System | Multi-Path Software |
|---|----------|--------------------------------------|---------------------|
| Data Replication Manager (DRM) RA/ MA8000, ESA/EMA12000, EMA16000 (HSG80) | ACS 8.7P | HP OpenVMS 7.2-2, 7.3, and 7.3-1 | Native |
| | | HP Tru64 UNIX V5.1, 5.1a and 5.1b | Native |
| | | HP-UX v11.0, 11i v1 | Secure Path |
| | | IBM AIX 4.3.3 & 5.1 | |
| | | Windows 2000, NT | |
| | | Novell Netware 5.1, 6.0, and 6.5 | |
| | | Red Hat Linux AS 2.1 | |
| | | Solaris V2.6, 7, 8, and 9 | |

Table 6: iSCSI-Supported Operating Systems, Networks Interface Cards, iSCSI initiator

| Operating Systems ¹ | Network Interface Controllers (NIC) | iSCSI Initiator | Multi-Path Software |
|---|---|--|-----------------------------------|
| HP-UX 11i v1, 11i v2 | All NICs supported by HP-UX Consult the <i>HP-UX iSCSI Release Notes</i> for updates or patches for drivers: www.docs.hp.com | HP-UX 11i v1: B.11.11.03a, B.11.11.03b HP-UX 11i v2 (pre-0409): B.11.23.03a, B.11.23.03b HP-UX 11i v2 (0409): B.11.23.03c | Not Supported |
| Microsoft Windows 2000 SP2 with either Microsoft hotfix Q302895 or Q248720 and Microsoft hotfix Q318271, SP3 MSCS Cluster with HP Windows iSCSI initiator only | All Gbe NICs supported by HP for Windows | HP Windows Initiator 3.1.1, 3.1.3, 3.1.4 Microsoft Windows Initiator 1.05a, 1.06 | Secure Path ² v4.0A |
| | | HP Windows Initiator 3.1.1, 3.1.3, 3.1.4 Microsoft Windows Initiator 1.05a, 1.06 | |
| Microsoft Windows 2003 Standard Edition Enterprise Edition | | HP Windows Initiator 3.1.1, 3.1.3, 3.1.4 | Secure Path ² v4.0B |
| | | Microsoft Windows Initiator 1.05a, 1.06 | Not Supported |
| Red Hat Advanced Server 2.1 | All Gbe NICs supported by HP for Red Hat Linux using O/S default NIC drivers | v3.4.1 ³ | Not Supported |

1. Linux Clustering is not supported.
2. Secure Path for Windows is only supported with SR2122-2's in Router Standalone Mode and using the HP Windows Initiator.
SR2122-2's in Router High Availability Clustered Mode are not supported when using Secure Path.
3. Please refer to the following web site for the latest sources for the Linux driver for the HP SR2122-2 IP Storage Router:
<http://sourceforge.net/projects/linux-iscsi>